Cell Calcium (1996) 20(6), i-iv © Pearson Professional Ltd 1996

Volume 20 Contents

NUMBER 1 JULY 1996

REVIEW

Recovery from TPA inhibition of receptor-mediated Ca^{2+} mobilization is paralleled by down-regulation of protein kinase $C-\alpha$ in CHO cells expressing the CCK-A receptor

R.L.L. Smeets, K.M. Garner, M. Hendriks, S.E. van Emst-de Vries, M.D. Peacock, W. Hendriks, J.J.H.H.M. De Pont, P.H.G.M. Willems 1

Two different store-operated Ca²⁺ entry pathways in MDCK cells Paul Dietl, Thomas Haller, Barbara Wirleitner, Franz Friedrich 11

lonomycin induced changes in intracellular free calcium in SH-SY5Y human neuroblastoma cells: sources of calcium and effects on [³H]-noradrenaline release

John R. Purkiss, Garv B. Willars 21

Depletion of calcium stores by thapsigargin induces membrane depolarization by cation entry in human neutrophils O. Scharff, B. Foder 31

Characterization of an oxytocin-induced rise in [Ca²⁺], in single human myometrium smooth muscle cells J.R. Holda, C. Oberti, E. Perez-Reyes, L.A. Blatter 43

Ca²⁺ signaling in endothelial cells stimulated by bradykinin: Ca²⁺ measurement in the mitochondria and the cytosol by confocal microscopy Emmanuel Donnadieu, Lilly Y.W. Bourguignon 53

The calcium-binding protein calretinin-22k, an alternative splicing product of the calretinin gene is expressed in several colon adenocarcinoma cell lines

Jean-Charles Gander, Montserrat Bustos-Castillo, Dietrich Stüber, Willi Hunziker,

Marco Celio, Beat Schwaller 63

A method for measuring sarcoplasmic reticulum calcium uptake in skeletal muscle using Fura–2 S.A. Warmington, M. Hargreaves, D.A. Williams 73

MEETING REPORTS

Calreticulin: how many functions in how many cellular compartments? Como, April 1996 Jacopo Meldolesi, Karl-Heiz Krause, Marek Michalak 83

Calcium binding proteins in normal and transformed cells. Perugia, May 1996 R.J.P. Williams 87

NUMBER 2 AUGUST 1996

SPECIAL ISSUE

MICRODOMAINS AND ELEMENTAL EVENTS IN CALCIUM SIGNALLING Collected papers and reviews – Edited by Michael J. Berridge

Preface
Michael J. Berridge 95

INVITED REVIEWS

Hormone-evoked subcellular Ca²⁺ signals in HeLa cells Martin D. Bootman 97

Elementary events of InsP₃-induced Ca²⁺ liberation in *Xenopus* oocytes: hot spots, puffs and blips *Ian Parker, John Choi, Yong Yao* 105

Sarcomeric calcium sparks activated by fiber depolarization and by cytosolic Ca²⁺ in skeletal muscle *Martin F. Schneider, Michael G. Klein* 123

Excitation-contraction coupling in heart: new insights from Ca²⁺ sparks

H. Cheng, M.R. Lederer, R-P. Xiao, A.M. Gómez, Y-Y. Zhou, B. Ziman, H. Spurgeon, E.G. Lakatta, W.J. Lederer 129

Spontaneous transient outward currents in smooth muscle cells T.B. Bolton, Y. Imaizumi 141

Ca2+ sparks and Ca2+ waves activate different Ca2+-dependent ion channels in single myocytes from rat portal vein J. Mironneau, S. Arnaudeau, N. Macrez-Lepretre, F.X. Boittin 153

Calcium, BOBs, QEDs, microdomains and a cellular decision: control of mitotic cell division in sand dollar blastomeres Robert B. Silver 161

Specialized release zones in chromaffin cells examined with pulsed-laser imaging lain M. Robinson, Mitsuhiko Yamada, Mariano Carrion-Vazquez, Vanda A. Lennon and Julio M. Fernandez 181

Spatial domains of Ca2+ signaling in secretory epithelial cells Peter Thorn 203

Localized calcium signalling and neuronal integration in cerebellar Purkinje neurones Jens Eilers, Tim Plant, Arthur Konnerth 215

NUMBER 3 SEPTEMBER 1996

REVIEW

Some commonly overlooked properties of calcium buffer systems: a simple method for detecting and correcting stoichiometric imbalance in CaEGTA stock solutions Martin Klabusay, John R. Blinks 227

RESEARCH

Quantification of intraluminal free [Ca] in the agonist-sensitive internal calcium store using compartmentalized fluorescent indicators: some considerations Aldebaran M. Hofer, Irene Schulz 235

Quantal calcium release in electropermeabilized SH-SY5Y neuroblastoma cells perfused with myo-inositol 1,4,5-trisphosphate R.A. Wilcox, J. Strupish, S.R. Nahorski 243

Propagation of calcium waves between colonic smooth muscle cells in culture S.H. Young, H.S. Ennes, E.A. Mayer 257

Hypertonic glucose impairs glucose-induced increases in cytosol Ca2+ concentration and insulin secretion by HIT-T 15 cells Noriyuki Sato, Koji Kashima, Hiroyuki Shimizu, Yohnosuke Shimomura, Masatomo Mori 273

Identification of an S100A1/S100B target protein: phosphoglucomutase Aimee Landar, Gayla Caddell, Julie Chessher, Danna B. Zimmer 279

Non-hyperbolic calcium calibration curve of Fura-2: implications for the reliability of quantitative Ca2+ measurements W. Henke, C. Cetinsoy, K. Jung, S. Loening 287

Modulation of presynaptic calcium homeostasis by nitric oxide Alberto Martínez-Serrano, Cristina Börner, Rodolfo Pereira, Martín Villalba, Jorgina Satrústegui 293

Characteristics of cytosolic Ca2+ elevation induced by muscarinic receptor activation in single adrenal chromaffin cells of the guinea pig T. Ohta, T. Asano, S. Ito, N. Kitamura, Y. Nakazato 303

NUMBER 4 OCTOBER 1996

RESEARCH

Excitation of Drosophila photo-receptors by BAPTA and ionomycin: evidence for capacitative Ca2+ entry? R.C. Hardie 315

Calcium oscillations in melanotrope cells of Xenopus laevis are differentially regulated by cAMP-dependent and cAMP-independent mechanisms J.R. Lieste, W.J.J.M. Scheenen, P.H.G.M. Willems, B.G. Jenks, E.W. Roubos 329

 P_{20} purinoceptor modulation of intracellular Ca^{2*} in a human lung adenocarcinoma cell line: down-regulation of Ca^{2*} influx by protein kinase C

M.T. Clunes, P.J. Kemp 339

Calmodulin-dependent protein kinase II from bovine cardiac muscle: purification and differential activation by calcium R. Kakkar, R.V.S. Raiu, R. K. Sharma 347

Ca²⁺ effluxes from the sarcoplasmic reticulum vesicles of frog muscle: effects of cyclopiazonic acid and thapsigargin Guo-guang Du, Christopher C. Ashley, Trevor J. Lea 355

Regulation of intracellular calcium is closely linked to glucose metabolism in J774 macrophages S. Darbha, R.B. Marchase 361

Spatial gradients of cytosolic calcium concentration in neurones during paradoxical activation by calcium Stephen R. Bolsover, S.B. Kater, Peter B. Guthrie 373

NUMBER 5 NOVEMBER 1996

RESEARCH

Nuclear versus perinuclear and cytoplasmic calcium in osteoclasts J. Ferrier, H. Yu 381

Gap junctions mediate intercellular calcium signalling in cultured articular chondrocytes Paola D'Andrea, Franco Vittur 389

Sphingosine-induced inhibition of capacitative calcium influx in CFPAC-1 cells Silvia Orlati, Marika Cavazzoni, Michela Rugolo 399

Glucose-induced $[Ca^{2*}]_i$ oscillations in single human pancreatic islets Franz Martín, Bernat Soria 409

Spontaneous and gonadotropin-releasing hormone-stimulated cytosolic calcium risesin individual goldfish gonadotrophs Patrice Mollard. Olivier Kah 415

The effects of proteins on [Ca²·] measurement: different effects on fluorescent and NMR methods Shinichi Matsuda, Hideo Kusuoka, Katsuji Hashimoto, Eiichiro Tsujimura, Tsunehiko Nishimura 425

Correlation between cytosolic Ca²⁺ concentration, protein phosphorylation and platelet secretion L. Dalla Via, M. Stirnamiglio, M. Scapin, L. Cesaro, R. Deana 431

Agonist-stimulated calcium transients in PC12 cells are affected differentially by cadmium and nickel J. Benters, T. Schäfer, D. Beyersmann, S. Hechtenberg 441

NUMBER 6 DECEMBER 1996

RESEARCH

Redox modulation of calcium entry and release of intracellular calcium by thimerosal in GH₄C, pituitary cells Leena Karhapää, Aleksey Titievsky, Kai Kaila, Kid Törnquist 447

Characterization of the human S100A12 (calgranulin C, p6, CAAF1, CGRP) gene, a new member of the S100 gene cluster on chromosome 1q21

Roland Wicki, Ingo Marenholz, Dietmar Mischke, Beat W. Schäfer, Claus W. Heizmann 459

Time-resolved fluorescence of S-100a protein: effect of Ca²⁺, Mg²⁺ and unilamellar vesicles of egg phosphatidylcholine Giovanna Zolese, Ileana Giambanco, Giovanna Curatola, Roberto Staffolani, Enrico Gratton, Rosario Donato 465

Temperature modulates the Ca $^{2+}$ current of HIT-T15 and mouse pancreatic β -cells Tracie A. Kinard, Leslie S. Satin 475

The amount of acetylcholine mobilisable Ca²⁺ in single smooth muscle cells measured with the exogenous cytoplasmic Ca²⁺ buffer, Indo-1 *V.Ya. Ganitkevich* 483

The autoantigen La/SSB is a calmodulin-binding protein

A. Castro, M. Faura, N. Agell, J. Renau-Piqueras, O. Bachs 493

SK&F 96365 inhibits intracellular Ca²⁺ pumps and raises cytosolic Ca²⁺ concentration without production of nitric oxide and von Willebrand factor

Labor Journales Frédérique Lantoine Marie-Gabrielle Pernollet Flisabeth Millanyoye-Van Brussel

Lahcen Iouzalen, Frédérique Lantoine, Marie-Gabrielle Pernollet, Elisabeth Millanvoye-Van Brussel, Marie-Aude Devynck, Monique David-Dufilho 501

Intracellular chelation of calcium prevents cell damage following severe hypoxia in the rat cerebral cortex as studied by NMR spectroscopy ex vivo

Olli Gröhn, Risto Kauppinen 509

Involvement of mitochondria in intracellular calcium sequestration by rat gonadotropes Solveig Hehl, Andre Golard, Bertil Hille 515

Subject index to Volume 20 525

Author index to Volume 20 529

